|  |
| --- |
| Y13.1) Evaluate 66 + 66 x 66 -66 = |
| Y13.2) Simplify (Note: denotes factorial) |
| Y13.3) Find arg(-2i) in degrees. |
| Y13.4) Simplify |

|  |
| --- |
| Y13.5) A number, is divided by 7 gives a remainder of 2. What is the remainder when is divided by 7. |
| Y13.6) Find vertical asymptote(s) of the rational function |
| Y13.7) If evaluate |
| Y13.8) For the partial fraction +  Find the values of A and B. |

|  |
| --- |
| Y13.9) Find coefficient of in the expansion of . (Hint: Use binomial theorem) |
| Y13.10) Write the recurring number 0.54545454…… as a fraction |
| Y13.11) Determine the radius of circle inscribed in the right - angle triangle below. |
| Y13.12) In a company party of 15 people, how many handshakes are possible? |

|  |
| --- |
| Y13.13) Simplify as a single base of 5. |
| Y13.14) At how many points does the polynomial cut the x –axis? |
| Y13.15) The sum of 3 consecutive prime numbers is 211. What is the difference between the largest and the smallest numbers? |
| Y13.16) Evaluate |

|  |
| --- |
| Y13.17) What is the probability of drawing two queens consecutively from a pack of 52 cards without replacement? (Give the answer in simplest fraction) |
| Y13.18) Find the integers b and c such that the sequence which yields the terms for natural numbers, n. |
| Y13.19) Given , find |
| Y13.20) Use the first three terms of the exponential series, to find the value of as a simple fraction. |